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30V/124-59-9-10634

Translation from: Referativnyy zhurnal, Mekhanika, 1959, Nr 9, p 147 (USSR)

AUTHOR: Makarevich, A.I.

TITLE: The Mean Metal Flow Pressure Within a Stamp Hollow of Ring Form

PERIODICAL: Sb. nauchn. tr Fiz.-tekhn. in-t AS BSSR, 1958, Nr 4, pp 112-123

ABSTRACT: The author considers the plastic stress state arising at the extrusion of a metal in a ring-like stamp. It is presumed that the direction of the main normal stresses coincides with the direction of the press strain. On the basis of the presumption mentioned, calculation formulae for the stresses and strains are derived. Test data from extrusion of lead are presented

A.D. Tomlenov

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S/571/60/000/006/002/011
E193/E383

AUTHORS: Severdenko, V.P. and Makarevich, A.I.

TITLE: Stamping of internally-webbed forgings

SOURCE: Akademiya navuk Belaruskay SSR. Fiziko-tekhnicheskiy institut. Sbornik nauchnykh trudov. no. 6. Minsk, 1960. 8 - 33

TEXT: An internally-webbed ring (driving flange) is one of the most common shapes produced by drop-forging. Since the web accounts for the bulk of material used up in the fabrication of components of this type, the general trend is to reduce its thickness. A decrease in the web thickness, however, can be attained only at the price of increased forging pressure, intensified tool wear and an increased proportion of faulty forgings. Since no fundamental studies of drop-forging of internally-webbed components have been reported in the literature, the optimum web thickness is usually calculated from empirical formulae, in which the geometry of the forgings only is taken into account. Hence the present investigation - whose object was to relate the geometry of the part under consideration to

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Stamping of ....

deformation and flow of the metal, contact friction, stress distribution and heat-transfer during the process studied with a view to developing a method of determining the optimum web thickness. The first chapters of the article are devoted to an analysis of results of earlier studies (Ref. 6 - A.I. Makarevich - Sb. nauchnykh trudov FTI AN BSSR, no. 4 izd. AN BSSR, 1958) of metal flow in internally-webbed forgings which are correlated with the experimental results reported in the remaining part of the paper. The conclusions reached can be summarised as follows:

1) A characteristic feature of forging of internally-webbed components is non-uniform distribution of the stress and deformation, both in the web and at the mouth of the flash clearance (gutter). The general laws governing the flow of metal in round, symmetrical forgings apply also to internally-webbed rings.

2) In calculating the forging force, pressure due to deformation of metal between the top and bottom punches (fullers') has to be taken into account in addition to that set up in the annular part

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Stamping of ....

(rim) of the forging.
3) The flow of metal is confined mainly to the inner layers of the web. Consequently, wear of the punch due to movement of the metal relative to the tool surface is insignificant.
4) In the absence of work-hardening, the specific contact friction force, f , increases initially with increasing normal stress, σ_n , and then reaches a constant limiting value of $f_{max} = 0.5\ p_T$, where p_T is the yield strength of the alloying. This is illustrated in Fig. 2, where f (kg/mm^2) is plotted against σ_n (kg/mm^2). Curves 1 and 2 in graph A relating to lead and tin. Curves 1, 2. 3 in graph B relating to aluminium, copper and brass, respectively.
5) Non-uniform distribution of stresses normal to the die surface has been established. A, so-called, "indentation" method was used for this purpose. It consisted of drilling a number of blind holes in the working surface of the die in which hard alloy plugs were subsequently inserted with one end flush with the die surface and the other end, tapered to a point,

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Stamping of ....

pressed against a soft steel disc placed at the bottom of each hole. The maximum normal stress (i.e. that set up in the final stage of the forging operation) was determined from the size of the impression made by the pointed plugs in the steel discs. The results are reproduced in Fig. 3 where σ_n (kg/mm^2) is plotted against the distance (mm) from the die axis the cross-section of the die being shown under each graph. The flash clearance in all the experiments was maintained constant at 2.2 mm. The curves in Fig. 3a represent results obtained for a die with a punch diameter d_4 = 40 mm used to produce forgings with web thickness h ranging from 20 mm (bottom curve) to 2 mm (top curve), the curves in Fig. 3b represent results obtained for d_4 = 30 mm and h ranging from 15 - 2 mm

6) The magnitude of σ_n at any point at a distance r from the die axis can be calculated from a formula derived by the present authors

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Stamping of ....

$$\sigma_n = p_T \left[\frac{2\mu B + 4.8}{\delta} + 1.2 + \frac{2\mu}{h} (r_4 - r) \right] \qquad (4)$$

where μ is the friction coefficient,
p_T is the yield strength of the metal,
B is the thickness of the rim,
δ the flash clearance,
h web thickness and
r_4 web radius.

The accuracy of this formula is demonstrated in Fig. 5, showing the calculated (broken curve) and experimentally-determined (continuous curve) distribution of σ_n for a die with

$h = 2$ mm and $r_4 = 15$ mm.

7) The magnitude and distribution of σ_n depends on contact friction, as determined by the surface condition of the die. This is illustrated in Fig. 4, showing the distribution of σ_n

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resultant from the use of dies with the flat face of the punch roughly machined, polished and lubricated (Curves 1-3), respectively.

8) High normal stresses in the central portion of the web cause a distortion of the punch and are the main cause of its excessive wear. The maximum value of σ_n for any given case can be calculated from formula (4). If this value is equated to the maximum stress, $P_{доп}$ to which the punch can be subjected without distoring, a formula for the minimum permissible web thickness is obtained in the form:

$$h = \frac{2\mu r_u \delta}{\left(\frac{P_{доп}}{P_T} - 1.2\right)\delta - (2\mu B + 4.8)} \qquad (8)$$

9) A reduction of σ_n and a correspondingly longer life of the die can be attained by increasing the thickness of the web

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Stamping of ....

in its central portion. It is for this reason that so-called "combined" forging is advocated by some workers. In this process, side-by-side with forging of the main internally-webbed component, another component situated in the central portion of the web is stamped. As a result, metal consumption is reduced because the internal part of the web is utilized and the secondary forging has no flash, the production capacity of the press is increased and manpower requirements are reduced.

10) The maximum σ_n increases rapidly with decreasing h/d_4 ratio, and the optimum diameter of the web corresponds to $h/d_4 = 0.2 - 0.1$.

11) Experiments described in the present paper were conducted at room temperatures. In industrial practice, the temperature of the web decreases rapidly with a corresponding increase in the temperature of the punches. With decreasing temperature, the resistance of metal to deformation increases and higher forging pressure are required whereby the life of the instrument is shortened. Since the flow of metal is confined mainly to the internal layers of the web, the temperature of this region is of

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practical importance. An approximate formula was derived by the present authors, from which the temperature, Θ_4, of the central layer of the web at any stage of a forging operation can be calculated. The formula has the form of:

$$\Theta_4 = 1 - \frac{1}{1 + K_\varepsilon}\left(\operatorname{erfc}\frac{H}{4\sqrt{a_1 \tau}} + \operatorname{erfc}\frac{h_x}{4\sqrt{a_1 \tau}}\right) \qquad (14)$$

where K_ε is a coefficient characterising the heat-conductivity of the web relative to the punch material,
H is the thickness of the blank,
τ time of contact between the web and the punch,
h_x the web thickness after time τ and
a_1 thermal diffusivity of the web material.

The validity of this formula was confirmed by experiment.

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The critical web thickness, h_{cr}, is that which will ensure that the temperature in the interior layers of the web at the final moment of the forging operation is not appreciably lower than the initial temperature of the blank. Based on the analysis of formula (14), a formula for h_{cr} was derived in the form:

$$h_{cr} = 11.2 \sqrt{\lambda \tau / c\gamma} \qquad (16),$$

where λ is the heat-conductivity coefficient,
c specific heat and
γ the density of the web material.
There are 12 figures and 14 Soviet-bloc references.

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L 19361-66 EWT(m)/T/EWP(t) IJP(c) JD

ACCESSION NR: AP5009106 S/0250/65/009/002/0094/0096 17

AUTHOR: Makarevich, A. I. 16 B

TITLE: Preparation of aluminum single crystals by accumulative recrystallization 44,55 44,55

SOURCE: AN BSSR. Doklady, v. 9, no. 2, 1965, 94-96

TOPIC TAGS: aluminum single crystal, accumulative recrystallization, aluminum recrystallization

ABSTRACT: The starting material used was sheet aluminum of 99.5% purity 44,55 and 1 mm thick subjected to rolling and annealed for 5 hr at 450°C in order to produce a preferred grain orientation in the completely recrystallized specimen. To accelerate the accumulative recrystallization, the specimens were subjected to a uniform 1.5-2.0% extension along their entire length. The specimens were then annealed at 600°C, and steps were taken to keep the number of "seeds" arising in the metal to a minimum. A special device was used to insure a smooth and uniform immersion of the specimens in a salt melt (50% $NaNO_3$ + 50% KNO_3) maintained at 600°C. Depending upon the mechanical and thermal treatment, the optimum immersion rate was 18 to 30 mm/hr. Aluminum single crystals measuring 0.5 × 4 × 150 and 0.2 × 4 × 150 mm with the

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L 19361-66

ACCESSION NR: AP5009106

orientation (111)-[110], (110)-[111], (100)-[110], etc. were obtained. Orig. art. has: 1 figure.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN BSSR (Physicotechnical Institute AN BSSR)

SUBMITTED: 10Feb64 ENCL: 00 SUB CODE: MM, SS

NO REF SOV: 005 OTHER: 001

Card 2/2 BG

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L 55973-65 EWT(d)/EWT(m)/EWA(d)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)
Pf-4 JD

ACCESSION NR: AP5014496 UR/0032/65/031/006/0748/0749
621.745.3

AUTHORS: Raynes, L. Yu.; Makarevich, A. I.

TITLE: An electron gun for zone refining without a crucible

SOURCE: Zavodskaya laboratoriya, v. 31, no. 6, 1965, 748-749

TOPIC TAGS: electron gun, zone refining, power control, electron beam control, melting, temperature gradient / KRM 150 kenotron

ABSTRACT: A three-electrode electron gun was developed for zone refining. The addition of the third electrode (an accelerating one) eliminated the earlier problem of contaminating the specimen and coating the gun filament, thereby speeding its burnout. The electron gun (see Fig. 1 on the Enclosure) was modeled on a rubber membrane. The diaphragm (2) is fastened to the movable cylinder (1). Below the diaphragm is an annular accelerating electrode (3). The lower diaphragm (4) moves in respect to the cylinder (5). The cathode unit (made from tantalum) is fastened to insulators by a collar (6). The filament of the heater (7) is shielded from the specimen-anode (8) on one side by the diaphragm (2) and on the other by the diaphragm (4). The accelerating electrode is fed +46 kv, thereby

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ACCESSION NR: AP5014496

reducing the work function of the heater. Diaphragm (2) protects the accelerating electrode (3) from the electrons which are directed in a beam to the molten zone. A melting temperature gradient can be created by focusing the beam through the movements of cylinder (1) and the diaphragm (4). The accelerator electrode also acts as an anode current modulator and gives a practically inertia-free regulation of the thermal condition. In the power stabilizer (see Fig. 2 on the Enclosure) the specimen (1) is the anode and the filament (2) the cathode. The anode current passing through the current collector (3) creates a voltage in the comparison unit (4), where a signal also arrives from the adjustment unit (5). The adjusting signal is sent from (4) to the regulating cascade (6), changing the resistance. This changes the voltage distribution in the voltage divider (7) and the voltage in the control electrode (8). The anode output characteristic is maintained rather rigidly by using a high-voltage x-ray transformer of 2 kw power, with a bridge of four KRM-150 kenotrons, as the anode voltage source. The gun operation is recorded by an electronic potentiometer (9). Orig. art. has: 2 figures.

ASSOCIATION: Institut fiziki tverdogo tela i poluprovodnikov, Akademii nauk BSSR (Institute of Physics of Solids and Semiconductors, Academy of Sciences, BSSR)

SUBMITTED: 00 ENCL: 02 SUB CODE: EC, MM

NO REF SOV: 002 OTHER: 003

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L 55973-65
ACCESSION NR: AP5014496 ENCLOSURE: 01

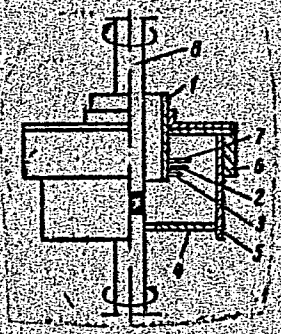

Fig. 1.
Sketch of a three-electrode electron gun

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ACCESSION NR: AP5014496

ENCLOSURE: 02

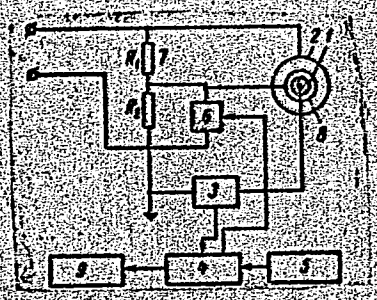

Fig. 2.
Block diagram of the power regulator

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MAKAREVICH, B.K.; MIKHEYEV, V.M.; TIKHVINSKIY, V.I.; PANKIN, A.V., doktor tekhn. nauk, retsenzent; FEDOROV, V.N., dots., retsenzent; MAKOVSKIY, G.M., red.; ABUMOVA, Ye.S., tekhn. red.

[Reconditioning metal-cutting tools] Vosstanovlenie rezhushchego instrumenta. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1948. 174 p. (MIRA 15:4)
(Metal-cutting tools--Maintenance and repair)

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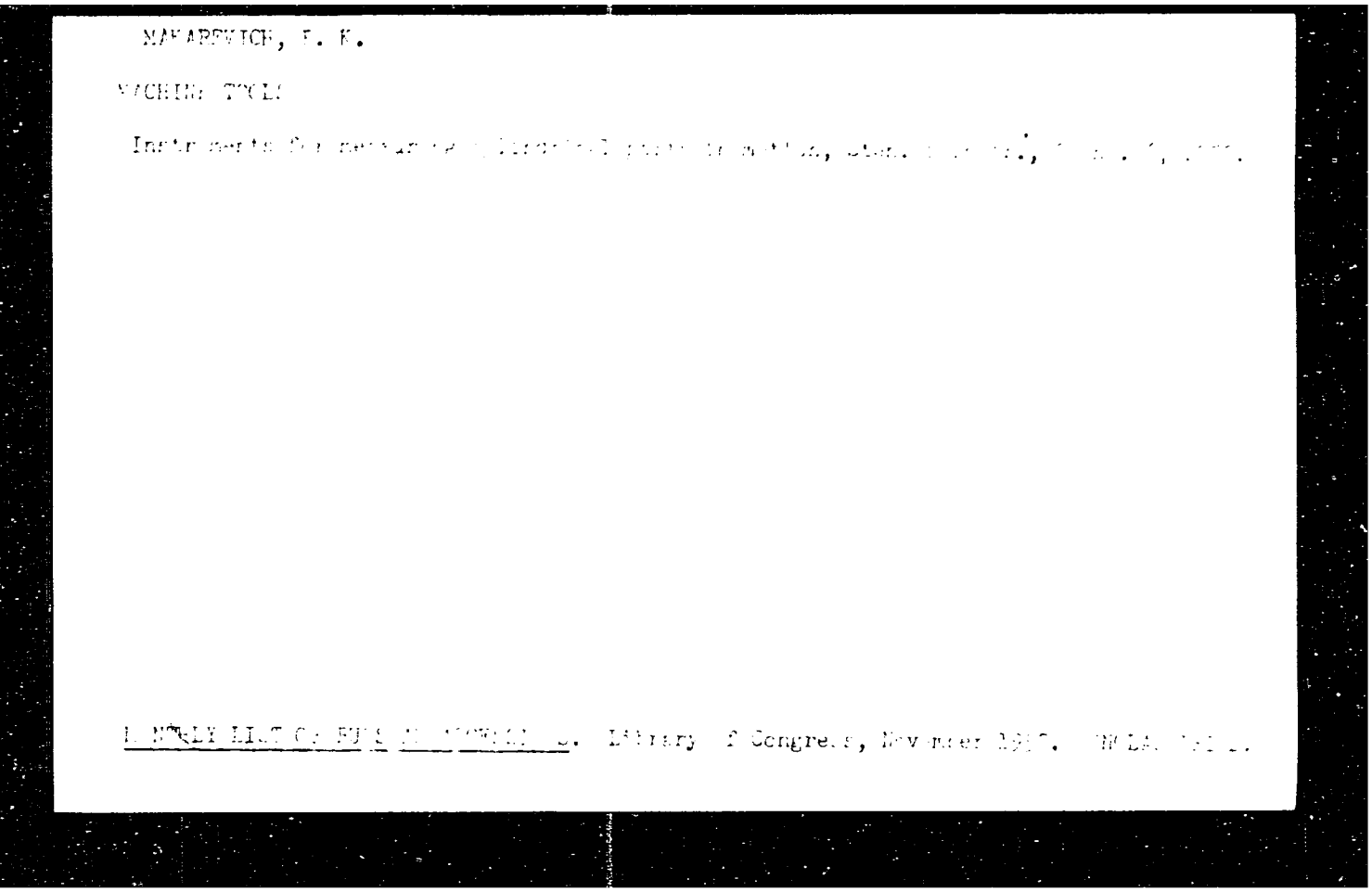

NAVARSKICH, F. K.

MACHINE TOOLS

Instruments for measuring [illegible]

[illegible] Library of Congress, November 1[illegible]

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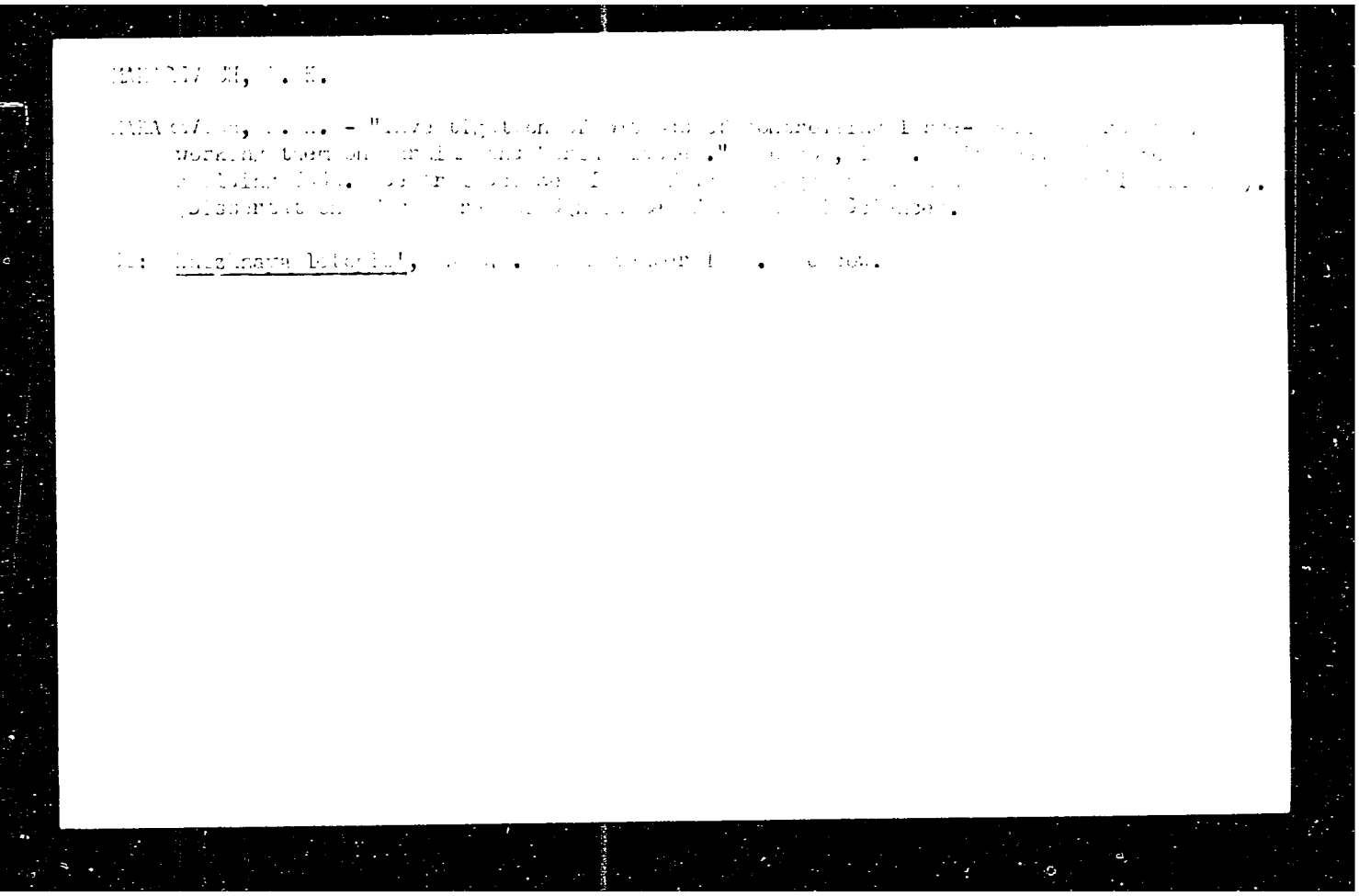

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH B K

AID P - 4495

Subject : USSR/Engineering

Card 1/1 Pub. 128 - 22/29

Authors : Makarevich, B. K., Kand. Tech. Sci., Manager of the Measuring Laboratory of the Central Scientific Research Institute of Machine-Building Technology (TsNIITMASh) and S. P. Rodionov, Engineer, Chief of the Main Inspection of Production Quality.

Title : Importance of Inspection Technology in Heavy Machine-Building.

Periodical : Vest. mash., #4, p. 78-79, Ap 1956

Abstract : The authors emphasize the importance not only of the proper inspection of the finished product but also of an analysis of the causes of technical flaws. They believe that Central Measuring Laboratories (TsIL) and Departments of Technical Inspection (OTK) in many leading machine-building plants must be increased, properly equipped, and professionally staffed.

Institution : None

Submitted : No date

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MAKAREVICH, B. K.

Makarevich, B. K. (Moscow, [illegible])

Interchangeability, Accuracy and Measuring Methods in Machine Building, Moscow, Mashgiz, 1958, 251 pp. (Sbornik Nauchno-tekh. obshch. mashinostroitel'noy promyshlennosti, Leningradskoye oblast pravleniya, kn. 47).

This collection of articles deals with the topics discussed at the 3rd Leningrad Sci. and Engineering Conference on Interchangeability, accuracy and Inspection Methods in Machine-building and Instrument-making, held 18-22 Mar 1957.

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MAKAREVICH, B.K. (Moskva)

Optical measurement of large machine parts. [Izd.] LONITOMASH 47:216-219 '58. (MIRA 11:10)
(Optical measurements)

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Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya

Sbornik rezaltatov tekhnologii tyazhelogo mashinostroyeniya, chast' 2: Obrabotka metallov rezaniyem i kontrol' kachestva detaley. [Some Problems in the Manufacturing Processes of Heavy Machinery, Pt. 2: Metal Cutting and Quality Control of Parts] Moscow, Mashgiz, 1960. 177 p. (Series: Its: [Trudy], No. 99) 2,500 copies printed.

Sponsoring Agencies: Gosudarstvennyy komitet Soveta Ministrov SSSR po avtomatizatsii i mashinostroyeniyu; Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya.

Ed.: N.P. Dubkov, Doctor of Technical Sciences, Professor; Managing Ed. for Literature on Heavy Machine Building: S.Ya. Golovin, Engineer; Ed. of Publishing House: G.M. Sobolev; Tech. Ed.: Z.I. Cherkova.

PURPOSE: This book is intended for technical personnel in heavy-machinery plants and for scientific workers in factory laboratories and research institutes.

Card 1/4

CONTENTS: The book contains a summary of work conducted by the personnel of TsNIITMASh in the field of mechanical machining and quality control of parts. Included is a discussion on the correct combination of depth, feed, and speed in cutting with maximum capacity of the machine tool. Also considered are the development of machining methods in rough and semifinishing production, and the application of ultrasonic devices for flaw detection and measurement of wall thickness. No personalities are mentioned. References follow some of the chapters.

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MAKAREVICH, B.K., kand.tekhn.nauk, NOVIKOV, N.I., inzh.

Remote optical measurements of large parts. Vzaim.i tekh.izm v mashinostr.; mezhvuz.sbor.no.2:339-350 '60. (MIRA 13:8)
(Optical measurements)

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E073/E535

AUTHORS: Novikov, N.I. and Makarevich, B.K.

TITLE: Automatic Measurement of the Dimensions During Turning

PERIODICAL: Izmeritel'naya tekhnika, 1961, No.6, pp.5-6

TEXT: In TsNIITMASh a new device was developed for measuring the external diameters of components being machined (Engineers A. Ya. Peliks and E. L. Abramzon participated in the development work). A roller 1 (Fig.1) containing an inductive pick-up is pressed onto and driven by the component being machined 2, the diameter of which is to be measured. The roller is fixed onto the rear tool-rest 3 of the lathe and is made to approach the component to be measured by rotating the worm of the tool-rest. The pressure applied to the roller is controlled by means of a spring. Rotation of the roller generates in the sensor a.c. signals of a frequency depending on the frequency of rotation of the component, the diameter of the roller and the number of teeth of the inductive pick-up. These signals are converted into short duration voltage pulses which are fed into a pulse counter. The phase state of the signal changes during each revolution a

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certain number of times in strict relation to the angle of rotation of the sensor. The revolution marker 4 emits command signals for starting and stopping the pulse counting. It consists of two coils with a permanent magnet, the magnetic circuit of which is closed by means of a cross-piece fitted onto the chuck of the machine tool. The cross-piece rotates together with the spindle and closes the magnetic circuit during each revolution. On closing the magnetic circuit a signal appears in the coil; this is transformed into a short duration pulse which is fed to the pulse counting circuit. The revolution marker gives one signal for each full revolution of the machined part. The sensor (Fig.2) consists of two toothed rims 1 and 2 which are able to rotate independently of each other. In a Π-shaped slot of the rim 2 a coil 3 is placed which is fed by direct current. The shaft 4 is hollow to allow for passage of the leads of the coil. The larger the diameter of the component the larger will be the angle by which the sensor will turn for a predetermined number of revolutions of the component and the larger will be the number of signals generated and counted. The equipment

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Automatic Measurement of the ... S/115/61/000/006/001/006
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is capable of generating 840 signals per revolution for a roller diameter of 210 mm. Experiments for determining the influence of speed of cutting on the accuracy were carried out at speeds of 20-250 m/min and these have shown that the scatter in the results does not exceed 0.03 mm for a roll pressure of 70 kg. The surface roughness of the components was within the limits of 10 to 80 μ. Use of cutting fluids had no influence on the accuracy. The experiments were carried out on a lathe with a centre height of 500 mm. Random errors are within the normal Gauss distribution, the mean square deviations being 21 μ. There are 2 figures.

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S/122/62/000/004/005/006
D221/D302

AUTHORS: Makarevich, B.K., Candidate of Technical Sciences, Novikov, N.I., Pelikc, A.Ya., Abramzon, E.L., and Sapozhkov, A.I., Engineers

TITLE: A device for automatic measurement of diameters on lathes

PERIODICAL: Vestnik mashinostroyeniya, no. 4, 1962, 73 - 77

TEXT: The investigations of ENIMS revealed that over 25 % of the auxiliary time is taken up by measurements. The device designed by TsNIITMASh uses a burnishing roller with an inductive transducer and a contactless revolution counter for the automatic measurement of components during their machining on lathes. This principle does not require additional setting when changing from one diameter to another. The rotor and stator are toothed, and the inductivity of the coil varies with the relative change of position between the teeth and cavities of the former. The shaft of the unit carries a wheel, which is brought into contact with the workpiece, so that their ratio determines the speed of rotation of the rotor. The out-

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A device for automatic measurement ...

ut of the transducer forms a sine wave counted by an electronic device. The linear expression of the pulse is A = d/mz, where d is the diameter of the burnishing roller in mm, m is the r.p.m. of the workpiece and z is the number of pulses per one revolution of the roller. The experiments at various speeds of turning indicate that stable results are ensured with a pressure of 70 - 80 kg. The effect of surface finish on the accuracy of measurements is shown by deviations ± 0.03 - 0.04 mm. Random errors follow the Gaussian distribution. The transducer is connected to a bridge. The electronic circuit is described and illustrated, together with the transducer. The authors analyze the various errors which arise in the arrangement and indicate the total error without considering inaccuracies due to temperature. The device allows a 60 - 80 % reduction of the auxiliary time to be achieved. Use of the indicated pressure of the roller against the workpiece demonstrates a negligibly small slip, and thus has no effect on the readings. There are 8 figures and 4 Soviet-bloc references.

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, B.M.

25(1,6) PHASE I BOOK EXPLOITATION SOV/1592

Akademiya nauk SSSR. Institut mashinovedeniya

Osnovnyye voprosy tochnosti, vzaimozamenyayemosti i tekhnicheskikh izmereniy v mashinostroyenii (Basic Problems of Accuracy, Interchangeability and Engineering Measurements in Machine Building) Moscow, Mashgiz, 1958. 411 p. 4,500 copies printed.

Ed.: A.N. Gavrilov, Doctor of Technical Sciences, Professor; Tech. Ed.: B.I. Model'; Managing Ed. for Literature on Metal Working and Tool Making (Mashgiz): R.D. Beyzel'man, Engineer.

PURPOSE: This collection of articles is intended for engineering and scientific workers and for teachers and students of machine and instrument building vuzes.

COVERAGE: This collection of article presents the works of a conference on basic problems of accuracy, interchangeability and engineering measurements, convened in March 1956 by the Machine Building Technology Commission of IMASh AN SSSR (Institute of Machine Construction of the Academy of Sciences, USSR), the State Committee for Modern Technology, the Committee for Standard Weights and Measuring Instruments under the Council of Ministers, USSR, the Ministries for Machine Building and the Ministry of Higher Education of the USSR. In the articles dealing with accuracy of fabrication, problems of the theory and practice of calculating accuracy of standard processes and standard products are discussed. In the articles on interchangeability and engineering measurements an evaluation of the present state of this field is presented along with the scientific and engineering outlook for the future. Theoretical and practical problems of automatic inspection are discussed. No personalities are mentioned. There are 140 references of which 121 are Russian, 10 German, 8 English, 1 French.

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Salmova, L.A., Engineer. Methods and Means for Measuring Center Distances of Mutually-parallel Axes of Holes in Frame-type Machine Parts 361

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APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, D.N.

Multistage air hammer. Biul. TSIICHM no.2:44 '61. (MIRA 14:9)
(Pneumatic tools--Patents)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

KUTUZOV, B.N., kand.tekhn.nauk; KASATOCHKIN, A.V., inzh.; MAIZELVICH, D.N., inzh.; TOKAR', M.G., inzh.

Dust collection during boring with the cleaning of bore holes with compressed air. Bezop.truda v prom. 5 no.11:22-24 N '61. (MIRA 14:11)

1. Kafedra bur vzryvnykh rabot Moskovskogo gornogo instituta. (Mine dust--Safety measures)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

SUKHANOV, A.F., [illegible]; MAZANOV, F.P., [illegible]; [illegible], B.N., [illegible]; BOBKOVSKIY, A.A., inzh.; MAKAROVSKIY, S.N., inzh.; TOKAR', M.G., inzh.

New ways of drilling holes in mines of the asbestos industry. Shakht. stroi. [illegible] Ap '63. (MIRA 16:3)

1. Moskovskiy institut radioelektroniki i gornoy elektromekhaniki.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

SUKHANOV, A.F., prof.; NAZAROV, [illegible].P., dotsent; KUTUZOV, B.N., kand. tekhn. nauk; MAKAREVICH, D.N., gorn. inzh.; TOKAR', M.G., gorn. inzh.

Investigation of combination drilling of boreholes in strip mines. Nauch. trudy Mosk. inst. radioelek. i gor. elektromekh. no.47:20-35 '63. (MIRA 17:6)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, D.N., gorn. inzh.

Investigation of rotary-percussion drilling of boreholes with compressed-air drills. Nauch. trudy Mosk. inst. radioelek. i gor. elektromekh no.47:36-48 '63. (MIRA 17:6)

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MAKAREVICH, D.N., g[illegible]

Drilling boreholes with a [illegible] pneumatic [illegible] of [illegible] ax [illegible] pressure on the [illegible]

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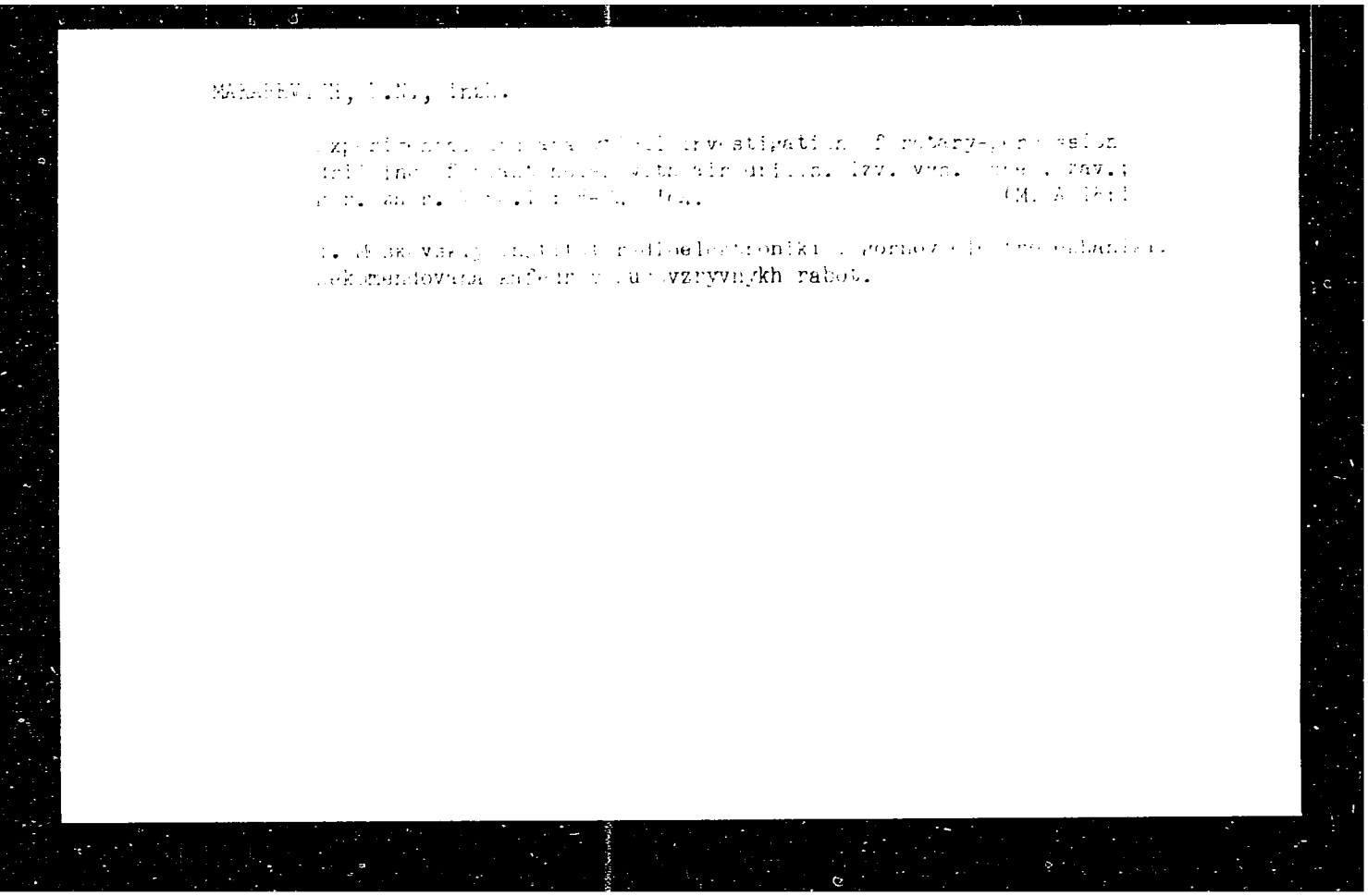

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L 22334-66 EWT(1)/EWP(m)/EWA(d)/EWA(h)/EWA(1) WW

ACC NR: AP6013206 SOURCE CODE: UR/0421/66/000/002/0108/0114 54 B

AUTHOR: Bogoslovskiy, K. Ye. (Moscow); Kireyeva, N. I. (Moscow); Makarevich, G. A. (Moscow); Tsvetayev, Yu. A. (Moscow); Shimarev, S. K. (Moscow); Tarantov, Ye. A. (Moscow)

ORG: none

TITLE: Investigation of unsteady flows past models in an electromagnetic shock tube

SOURCE: AN SSSR. Izvestiya. Mekhanika zhidkosti i gaza, no. 2, 1966, 108-114

TOPIC TAGS: experiment aerodynamics, electromagnetic shock tube, strong shock wave, detached shock wave, shock wave reflection, supersonic flow

ABSTRACT: An experimental investigation of unsteady flows moving behind strong shock waves produced by electric discharges past models of various shape was carried out in an electromagnetic shock tube. The purpose of this study was to determine the time of flow transition from an unsteady to a steady state in the stagnation-point region and to check the theoretical data on flow parameters behind strong shock waves. The electromagnetic shock tube, experimental set-up, instrumentation, and test procedure are described. The results obtained in an electric discharge shock tube with wave velocity of the order of 8000 m/sec show that: 1) the obtained dependence of the nondimensional value of the relative shock wave detachment on bluntness as a function of nondimensional time makes it possible to determine the time of the estab-

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lishment of the flow near the stagnation point of spheres and cylinders in flows behind strong shock waves; 2) the experimental values of velocity and pressure behind reflected shock waves from the end plate of a shock tube are in satisfactory agreement with theoretical computations, taking account of dissociation and ionization; 3) the values of the relative, steady shock-wave detachment from the stagnation point of spheres and cylinders with flat bluntness in axial flows agree well with theoretical data obtained by others. Orig. art. has: 9 figures. [AB]

SUB CODE: 20/ SUBM DATE: 23Apr65/ ORIG REF: 006/ OTH REF: 002/ ATD PRESS: 4292

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APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

ACC NR: AP7004637 SOURCE CODE: UR/0288/66/000/003/0086/0090

AUTHOR: Makarevich, G. A.; Shimarev, S. K.

ORG: none

TITLE: Formation of stream in an electromagnetic shock tube

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk, no. 3, 1966, 86-90

TOPIC TAGS: shock wave structure, plasma shock wave, shock tube, discharge chamber, plasma electromagnetics, gas discharge

ABSTRACT: Experiments with electromagnetic shock tubes are described whose aim was to form slow ($T_{discharge} \simeq 10^{-4}$ sec) gas discharge and increase the region of discharge ("working plug region") characterized by homogeneous thermically ionized plasma. The three types of discharge chambers were 3m long and 80mm in diameter made of vitreous transparent plastic and vacuum chambers containing physical or aerodynamic models. All chambers had an efficiency of 50--60%. The working gas was air and the discharge was initiated from a 1200μfd capacitor bank charged to 5kV. It was established that the "plug" practically could not be observed when initial gas pressure was P_o < 1mm Hg. Its dimensions, however, increased to 10cm at P_o - 5mm Hg. To further increase its size the authors attempted to 1) place a metallic section 1m long next to the discharge chamber leaving the rest to be plastic as previously, 2)

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place a copper or teflon meshed section with 70% transparency in the same manner, and 3) place a pulse accumulator next to the discharge chamber. This accumulator, enclosing air at P = 1 atm by a rubber membrane from one side and by a polyamide film on the other, let the air flow into the discharge chamber when the membrane broke at the initial stage of the discharge. Orig. art. has: 1 table and 4 figures.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 001

Card 2/2

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

SVIRIDOV, V.V.; MAKAREVICH, I.A.

Kinetics of the thermal decomposition of silver oxalate in an atmosphere of different gases. Dokl. AN BSSR 3 no.5:208-210 My '59. (MIRA 12:10)

1.Predstavleno akademikom AN BSSR N.F. Yermolenko.
(Silver oxalates) (Gases)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, I.F.; TROPP, M.Ya.; KOLESNIKOV, D.G.

Erythrisidе, a new cardiac glycoside from Erysimum cheiranthoides L. Med. prom. 15 no.7:38-43 Jl '61. (MIRA 15:6)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.

(CARDIAC GLYCOSIDES)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, I.F.; TROPP, M.Ya.; KOLESNIKOV, D.G.

Chemical study of a new cardiac glycoside from wormseed mustard. Dokl. AN SSSR 136 no. 3:617-620 Ja '61. (MIRA 14:2)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut. Predstavleno akademikom A.I. Oparinym.
(CARDIAC GLYCOSIDES) (WORMSEED MUSTARD)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, I. F.; TROPP, M. Ya.; KOLESNIKOV, D. G.

Erycordin and deglucoerycordin, new cardioglycosides. Dokl. AN SSSR 147 no.4:849-852 D '62. (MIRA 16:1)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut. Predstavleno akademikom A. I. Oparinym.

(Glycosides)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKHRYUCH, I.F.; KOLESNIKOV, D.G.

Cardenolides of Erysimum cheiranthoides L. seeds. Khim. prirod. soed. no.5 360-364 '65. (MIRA 18:12)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut. Submitted June 16, 1965.

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KHAKHAREVA, T.P.; MINEYEV, A.M.; MAKAREVICH, I.K.; NESMELOVA, Z.P.

Infection from Salmonella oranienburg in one of the districts of Gorkiy. Zhur. mikrobiol., epid. i immun. 40 no.6:129-130 Je '63. (MIRA 17:6)

1. Iz Gor'kovskogo instituta epidemiologii i mikrobiologii, Gorod sanitarno-epidemiologicheskoy stantsii bol'nitsy No.23.

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LIPETS, A.U.; LAKHMANLOS, A.I.; YAKHILEVICH, F.M.; VIKHOREV, N.P.; MAKAREVICH, I.Z., inzh.; NEYMAN, A.D., inzh.; PERSHIN, V.I., inzh.

Experience in redesigning the steam superheating control system of operational high-pressure boilers produced by the Ordzhonikidze [illegible]. Elek.sta. 32 no.6:72-78 Je '61. (MIRA 14:6)
(Boilers)

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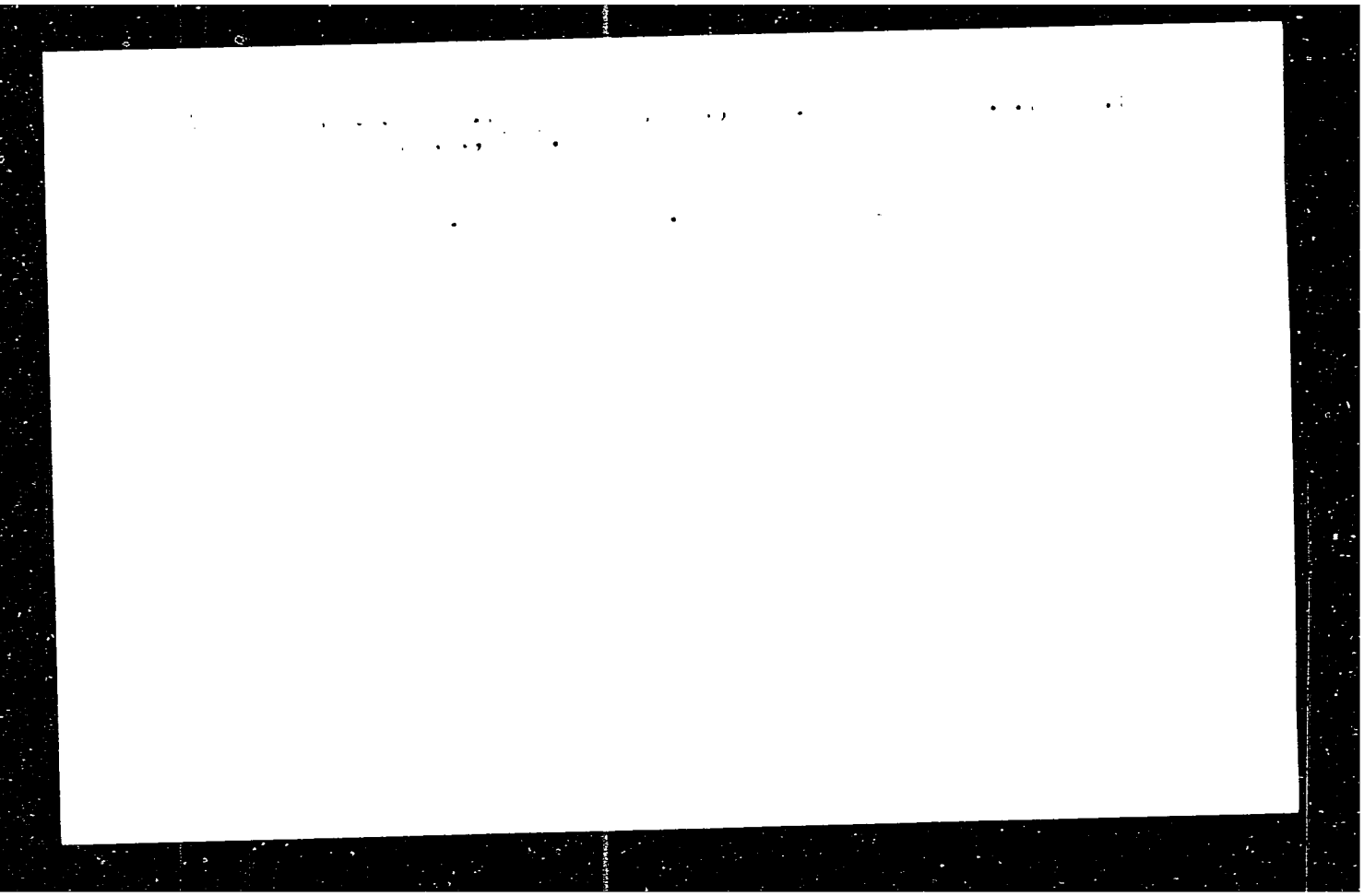

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MAKAREVICH, K. D.

Tuberculosis

Differtial diagnosis of large and giant caverns, Vest.rent. i rad. no. 1, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKARKEVICH, K.G.

Glaciers of the Kok-Bulak Valley in the upper reaches of the Issyk River. Izv.AN Kazakh.SSR.Ser.geol. no.16:113-117 '53. (MLRA 9:5)
(Kok-Bulak Valley--Glaciers)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, K.G.; ZENKOVA, V.A.

New data on the dynamics of glaciers in the Dzungarian Ala-Tau.
Vest.AN Kazakh.SSR 12 no.7:45-59 Jl '56. (MIRA 9:9)

1.Predstavlena akademikom AN KazSSR N.N.Pal'govym.
(Dzungarian Ala Tau--Glaciers)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

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MAKAREVICH, K.G.

Modern glaciation of the Lepsa Basin in the Dzungarian Ala-Tau.
Vop.geog.Kaz.no.2:65-100 '57. (MLRA 10:7)
(Lepsa Valley--Glaciers)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, K.G., kand. geogr. nauk.

Study of Trans-Ili Ala-Tau glaciers in accordance with the International Geophysical Year program. Vest. AN Kazakh. SSR 14 no.4:94-96 Ap '58. (MIRA 11:6)
(Trans-Ili Ala-Tau--Glaciers)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, K.G., kand.geogr.nauk

Hydrological aspect of Lepsa glaciers in the Dzungarian Ala-Tau.
Vest. AN Kazakh. SSR 14 no.9:48-60 S '58. (MIRA 11:11)
(Lepsa Valley--Glaciers)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, K.G.

Basic characteristics of present-day glaciation of the Lepsa River basin in the Dzungarian Ala-Tau. Trudy Sekt.geog.AN Kazakh.SSR no.3:176-194 '59. (MIRA 12:7)
(Lepsa Valley--Glaciation)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, K.G., kand.geogr.nauk

Symposium of glaciologists in Chamonix, France. Vest.AN Kazakh. SSR 15 no.1:102-105 Ja '59. (MIRA 12:1)
(Chamonix, France--Glaciers--Congresses)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, K.G., kand.geograficheskikh nauk; CHERKASOV, P.A., kand. geograficheskikh nauk

Discussion on problems in glaciology. Vest.AN Kazakh.SSR 17 no.6:99-100 Je '61. (MIRA 14:6)
(Glaciology--Congresses)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, K.G., kand.geograficheskikh nauk

Solution of basic glaciological problems for the Trans-Ili Ala-Tau. Vest. AN Kazakh. SSR 17 no.10:84-92 O '61. (MIRA 14:10)
(Trans-Ili Ala Tau--Glaciological research)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

(11)

CHICHE V, Chou P., and [illegible], V. [illegible], Institute [illegible], Academy of [illegible] P, Moscow [illegible] - "Recent changes in the [illegible]"

DO[illegible] N, [illegible], [illegible], and [illegible] A., and [illegible], Institute of [illegible], Academy of [illegible], Moscow [illegible] - "[illegible] sheet"

GR[illegible], M. [illegible], [illegible], Institute of [illegible], Academy of [illegible], Moscow [illegible] - "[illegible] of the mass balance of the glaciers on Franz Josef Land"

KOTLYAKOV, Vladimir V., Moscow State University imeni A. M. Gorkiy [1961] - "The fluctuations of glaciers in the Pamir"

MAKAREVICH, K. G., Geography Section, Academy of Sciences Kazakh SSR [1961] - "The regime of glaciers in the Zailiyskiy Alatau in recent decades"

PALGOV, Nikolay N., Head, Geography Section, Academy of Sciences Kazakh SSR, Alma-Ata [1961] - "The relation between glacier retreat and the position of the firn line with special reference to the Zentralny Tuyuksu Glaciers"

TRENOV, Mikhail V., Professor, Tomsk State University imeni V. V. Kuybyshev [1960] - "On the role of summer snowfalls in the fluctuation of glaciers"

report to be submitted for the Symposium on the Variations of the Regime of Existing Glaciers, IASH (IUGG), Obergurgl, Austria, 10-18 Sep 1962.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

PAL'GOV, N.N., otv. red.; ZENKOVA, V.A., red.; MAKAREVICH, K.G., red.; CHERKASOV, P.A., red.; KOVALEVA, I.F., red.; KHUDYAKOV, A.G., tekhn. red.

[Glaciological research during the IGY]Gliatsiologicheskie issledovaniia v period MGG. Alma-Ata, Izd-vo Akad. nauk Kazakhskoi SSR. No.2.[Trans-Ili and Dzungarian Ala-Tau]Zailiiskii i Dzhungarskii Alatau. 1962. 208 p. (MIRA 15:9)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Otdel geografii.
(Kazakhstan--Glaciological research)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

PAL'GOV, N.N., otv. red.; ZENKOVA, V.A., red.; MAKAREVICH, K.G., red.; CHERKASOV, P.A., red.; OSTROVERKHOV, A.P., red.; KHUDYAKOV, A.G., tekhn.red.

[Glaciological research during the IGY] Gliatsiologicheskie issledovaniia v period MGG. Alma-Ata, Izd-vo AN Kazakhskoi SSR. No.3. [Trans-Ili and Dzungarian Alatau] Zailiiskii i Dzhungarskii Alatau. 1963. 228 p.
(MIRA 17:2)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Otdel geografii.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

PAL'GOV, N.N., otv. red.; VILESOV, Ye.N., red.; ZENKOVA, V.A., red.; MAKAREVICH, K.G., red.; CHERKASOV, I.A., red.; PAL'GOVA, Z.M., red.

[Glaciological research in Kazakhstan] Gliatsiologicheskie issledovaniia v Kazakhstane. Alma-Ata, Nauka. No.5. 1965. 189 p. (MIRA 19:1)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata, Sektor fizicheskoy geografii.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, L.A.

New silk combine in Bendery. Tekst.prom. 16 no.2:70 F '56.
(MLRA 9:5)

1. Direktor Benderskogo shelkovogo kombinata.
(Bendery--Silk manufacture)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

YEFREMOVA, G.D.; MAKAREVICH, L.A.; SOKOLOVA, Ye.S.

Phase equilibria in the acetic acid - nitrogen system. Khim.prom. no.8:563-564 Ag '61. (MIRA 14:8)
(Nitrogen) (Phase rule and equilibrium)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

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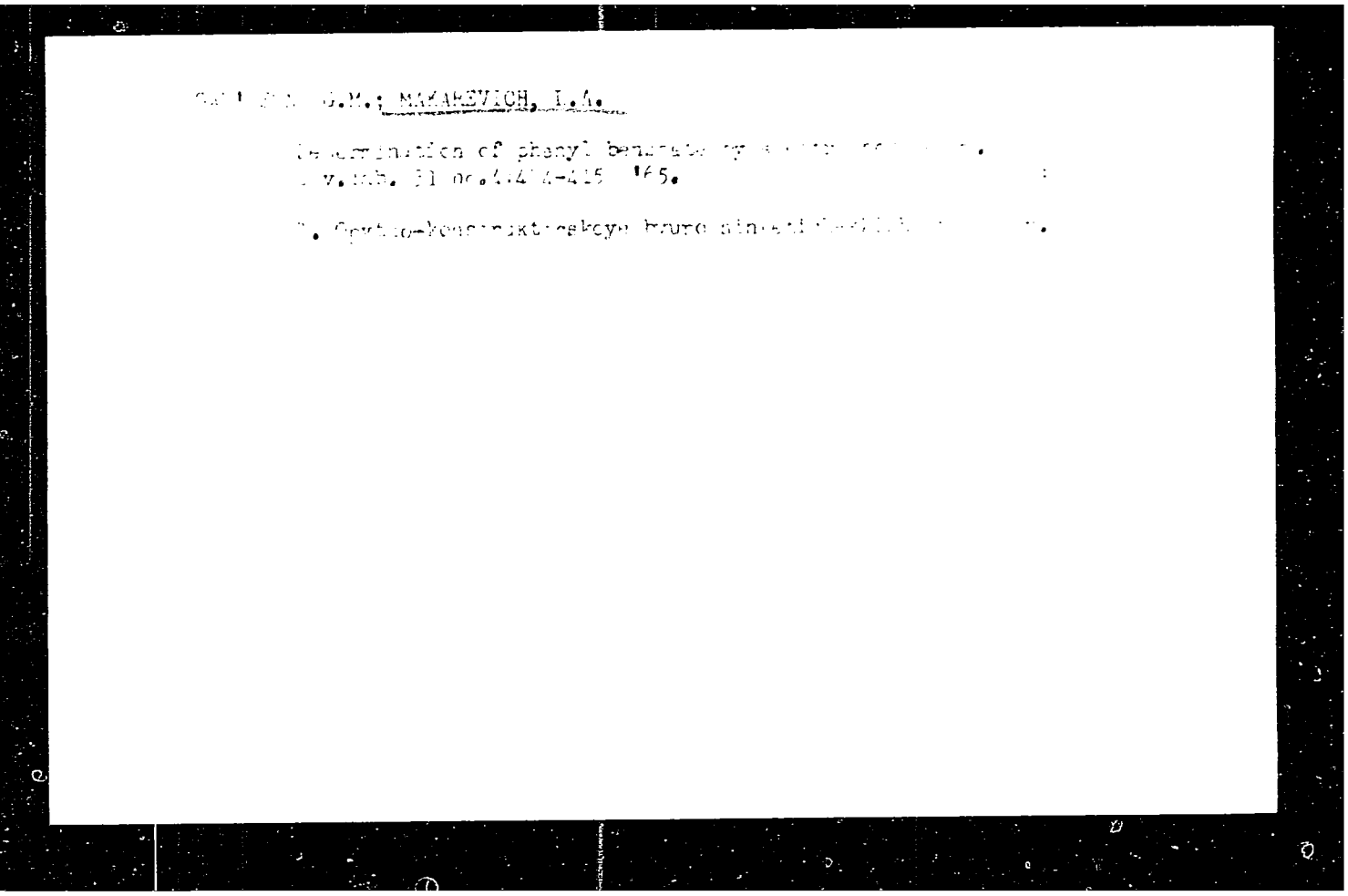

G.M.; MAKAREVICH, I.A.

Determination of phenyl benzoate by [illegible].
Zav.lab. 31 no.4:414-415 '65.

1. Opytno-konstruktorskoye byuro mineral'[illegible].

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, L.F.; ZHUK, V.L.; BALYURA, V.I.; MEKHEDA, V.P.; YAKOVENKO, A.G.

Work of separation plants. Sakh.prom. no.4:17-20 Ap '60.
(MIRA 13:8)

1. Chernovitskiy sakhsveklotrest (for Makarevich, Zhuk, Balyura).
2. Stanislavskiy sovnarkhoz (for Mekheda). 3. Bovshevskiy sakharnyy zavod (for Yakovenko).
(Sugar industry)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

SHKOL'NIKOVA, L.M.; SHUGAM, Ye.A.; MAKAREVICH, I.F.

Structural parameters of chelate compounds of N-substituted salicylal imine. Part 1. Salicylal ethylene diiminates. Rare case of the nonisostructurality of nickel and palladium chelates. Zhur.strukt.khim. 4 no.5:927-932 N-D '63. (MIRA 17:4)

1. Institut khimicheskikh reaktivov i osobo chistykh veshchestv.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

TAL'GOV, N.N., otv. red.; ZENKOVA, V.A., red.; MAKAREVICH, L.G., red.; OSTROVSKIKH, A.P., red.

[Glacial investigations during the IGY period] Gliatsiologicheskie issledovaniia v period MGG. Alma-Ata, Izd-vo AN Kazakh.SSR. No.4.[Trans-Ili and Kirgiz Alatau. Altai] Zailiiskii i kirgizskii Alatau. Altai. 1964. 166 p.
(MIRA 17:9)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Sektor Fizicheskoy geografii.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

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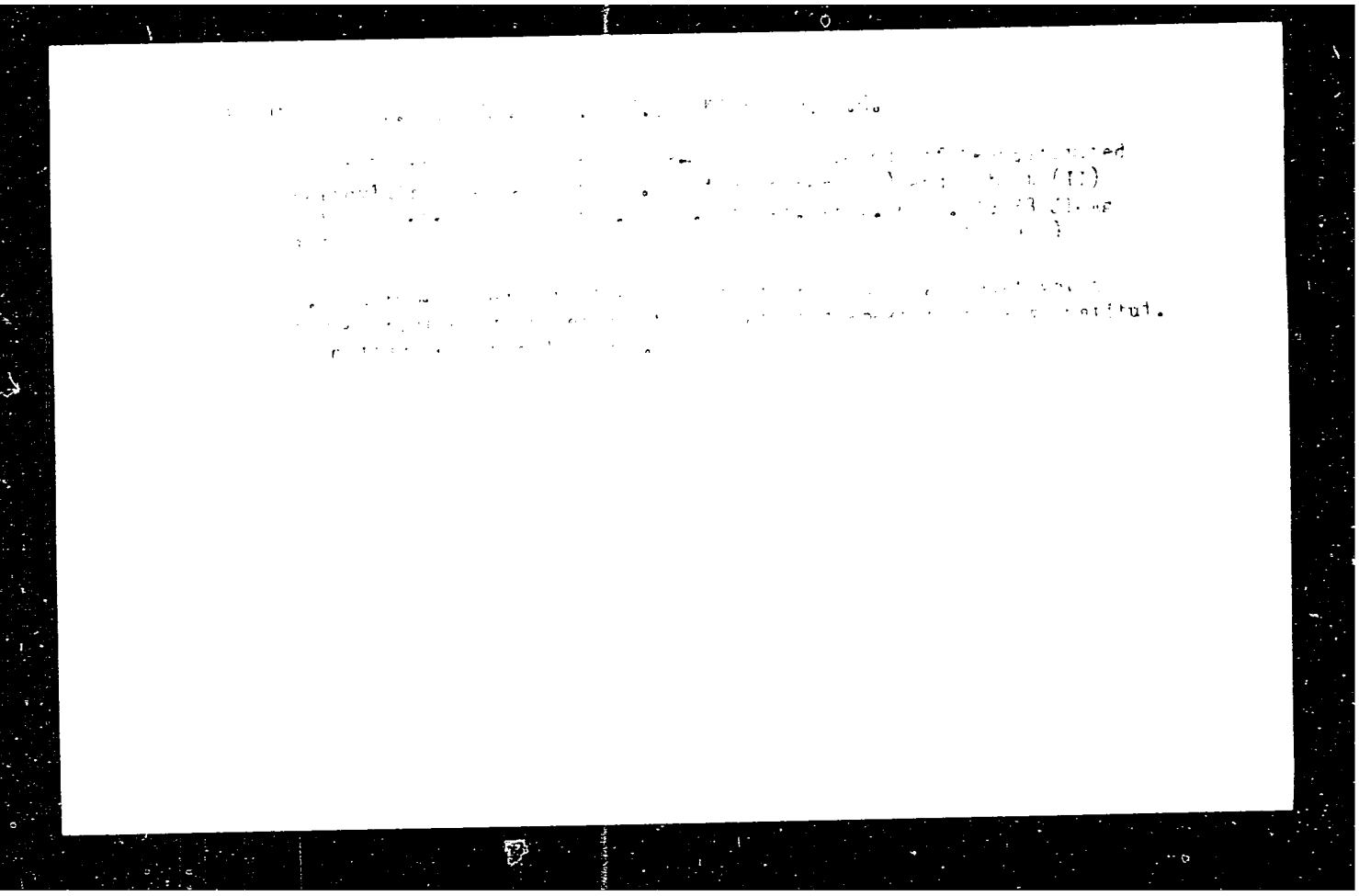

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

YEVSTRATOV, V.F.; MAKAREVICH, L.M.; SIMON, I.I.

Semiconductor instrument for checking, signaling, and automatic regulation of temperature of liquid products. Priborostroenie no.7:25-26 Jl '60. (MIRA 13:7)
(Thermostat)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, L.M., inzh.

Automatic milk reception line. Mekh.i avtom.proizv. 16 no.4:10-11 Ap '62. (MIRA 15:4)
(Milk plants—Equipment and supplies) (Automatic control)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, L.M.; SURKOV, V.D.

Investigating the possibility of applying the vibration frequency method in the inspection and rejection of damaged glass bottles. Izv.vys.ucheb.zav.; pishch.tekh. no.1:139-145 '63. (MIRA 16:3)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti, kafedra tekhnologii moloka i molochnykh produktov.
(Bottles--Testing)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

S/118/63/000/003/002/003

AUTHOR: Makarevich, L. M., Engineer and Tul'chinskiy, Yu. V., Engineer

TITLE: Automatic programmed control of the processes of filling and emptying tanks

17

PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, no. 3, 1963, 9-11

TEXT: The authors developed and built a system in the proyektno-konstruktorskiy institut avtomatizatsii pishchevoy promyshlennosti - PKIPishcheprom (Planning and Design Institute for Automating the Food Industry) for automatic programmed control of the technological processes of filling and emptying tanks. The system included a transducer for selecting the program which sent proper commands to the value actuating mechanisms at the proper time and in proper sequence. Levels in tanks were controlled by liquid level sensors. This system was tested on a group of 6 milk storage tanks. The УПРТ-1 (UPRT-1) device ensured the selection and operation of 720 programs. It operated on 220-volt alternating current in air temperatures of 10-39°C and relative humidity to 98%. Signal lamps indicating full and empty tanks, the relative position of each tank in the program, and inoperative value actuating mechanisms were mounted on the display panel. Blocking circuits prevented filling non-empty tanks. Advantages of this device included a controller in the form of a

Card 1 of 2

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Automatic programmed control ...

static memory which combined storage and sending current commands; the device was always ready for operation, and the next signal was blocked when any valve actuating mechanism was in operation. Production tests in the Moskovskiy molochnyy kombinat (Moscow Milk Combine)at Ostankino were successful.

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, L.M.; SURKOV, V.D.

Electric spark method for inspecting glass bottles. Izv.vys.ucheb. zav.; pishch.tekh. no.1:161-166 '64. (MIRA 17:4)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti i Institut avtomatizatsii proizvodstvennykh protsessov pishchevoy promyshlennosti.

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, M.F.

New and interesting lichens of the Ukrainian S.S.R. Bot.zhur.[Ukr.] 9 no.2:44-55 '52. (MLRA 6:11)

1. Institut botaniki Akademii nauk Ukrains'koi RSR, Viddil sporovikh roslin. (Ukraine--Lichens) (Lichens--Ukraine)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKARKEVYCH, M.F.

Crustaceous lichens (Opegrapha) of the Ukrainian S.S.R. Bot.zhur.[Ukr.] 10 no.3:72-80 '53. (MLRA 6:8)

1. Instytut botaniky Akademiyi nauk Ukrayins'koyi RSR, viddil sporovykh roslyn. (Ukraine--Lichens) (Lichens--Ukraine)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

DOBROCHAYEVA, D.M.; MAKAREVICH, M.F.

Results of the conference on the problem of "The study of flora and vegetation of the Ukrainian S.S.R. in relation to their utilization and transformation. Bot.zhur. [Ukr.] 10 no.4:91-100 '53. (MLRA 6:12)
(Ukraine--Botany, Economic--Congresses) (Congresses--Botany, Economic--Ukraine)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, M.F.

New species of the genus Acrocordia. Bot.zhur.[Ukr.] 11 no.2:75-77 '54. (MIRA 8:7)

1. Institut botaniki AN URSR, viddil sporovich roslin.
(Chernovtsy Province—Lichens)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, M.F.

Two new lichen species of the genus Lecanora Ach. Bot.zhur.[Ukr.] 11 no.4:59-65 '54. (MLRA 8:7)

1. Institut botaniki AN URSR, viddil sporovikh roslin.
(Ukraine—Lichens)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, M.F.

Lichens of Chernovtsy Province. Bot.zhur.[Ukr.] 12 no.2:52-59 '55.
(MLRA 8:10)

1. Institut botaniki Akademii nauk URSR, viddil sporovikh roslin
(Chernovtsy Province--Lichens)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, M.F.

Characteristics of the distribution of lichens in plant communities of the Soviet Carpathians [with summary in English]. Bot. zhur. 43 no.6:781-787 Je '58. (MIRA 11:7)

1. Institut botaniki Akademii nauk Ukrainskoy SSR, Kiyev.
(Carpathian Mountains--Lichens)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, M.F.

Al'fred Nikolaevich Oksner; on his 60th birthday. Bot.zhur. 43 no.10:1500-1501 O '58. (MIRA 11:11)

1. Institut botaniki AN USSR, Kiyev.
(Oksner, Al'fred Nikolaevich, 1988-)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, M.F.

Lichen flora of the Byalovezhska Pushcha Preserve. Bot. mat. Otd. spor. rast. 13:25-29 '60. (MIRA 13:7)
(Byelovezhska Pushcha--Lichens)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, Mariya Florianovna; OKSNER, A.N., doktor biol. nauk, otv. red.; SKUTS'KA, N.P., red. izd-va; TU.ENOVA, N.A., tekhn. red.

[Analysis of lichens of the Ukrainian Carpathians] Analiz likhenoflory Ukrains'kikh Karpat. Kyiv, Vid-vo AN URSR, 1963. 260 p. (MIRA 16:12)
(Carpathian Mountains--Lichens)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, M.G.; LAZNIKOVA, T.N.

Significance of phosphorus in the biosynthesis of chlortetracycline. Antibiotiki 4 no.1:46-50 Ja-F '59. (MIRA 12:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov i Moskovskiy khimiko-farmatsevticheskiy zavod imeni L.Ya.Karpova.
(PHOSPHORUS, metabolism,
Streptomyces aureofaciens, requirements in chlortetracycline (Rus))
(STREPTOMYCES, metab.
aureofaciens, phosphorus requirement during chlortetracycline synthesis (Rus))
(CHLORTETRACYCLINE, metab.
Streptomyces aureofaciens, phosphorus requirement during synthesis (Rus))

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

BA MAKAREVICH, M I.

Section 19

Effect of diethylamide of dihydroxypicolinic acid on carbohydrate metabolism. I S Belomoev and M I Makarevich (*Biokhimia*, 1940, **14**, 441 - 443). Injection of the amide into mice (100 mg./kg.) lowers the alimentary hyperglycæmia, increases the duration of insulin hypoglycæmia, and lowers the hyperglycæmic action of adrenaline. The effect is probably due to stimulation of glycogen synthesis in the liver. D H Smyth

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

BORISOVA, V.N.; GINSHFEL'D, R.V.; ZAKIN, M.M.; KUZ'MINA, P.A.; MAKAREVICH, M.S.

Use under dispensary conditions of seeding of sputum and tracheal washings for the detection of Mycobacteria tuberculosis. Probl. tub. 38 no.2:66-67 '60. (MIRA 13:11)

1. Iz II-go protivotuberkuleznogo dispansera Moskvy (glavnyy vrach G.V. Kotsubey).
(MYCOBACTERIUM TUBERCULOSIS)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

POLOSIN, N.V., inzh.; MAKAREVICH, N.A.

Equipment for the underground pressure station of the Ladzhanuri hydroelectric power station. Gidr.stroi. 31 no.4:8-13 Ap '61. (MIRA 14:5)

(Ladzhanuri hydroelectric power station)

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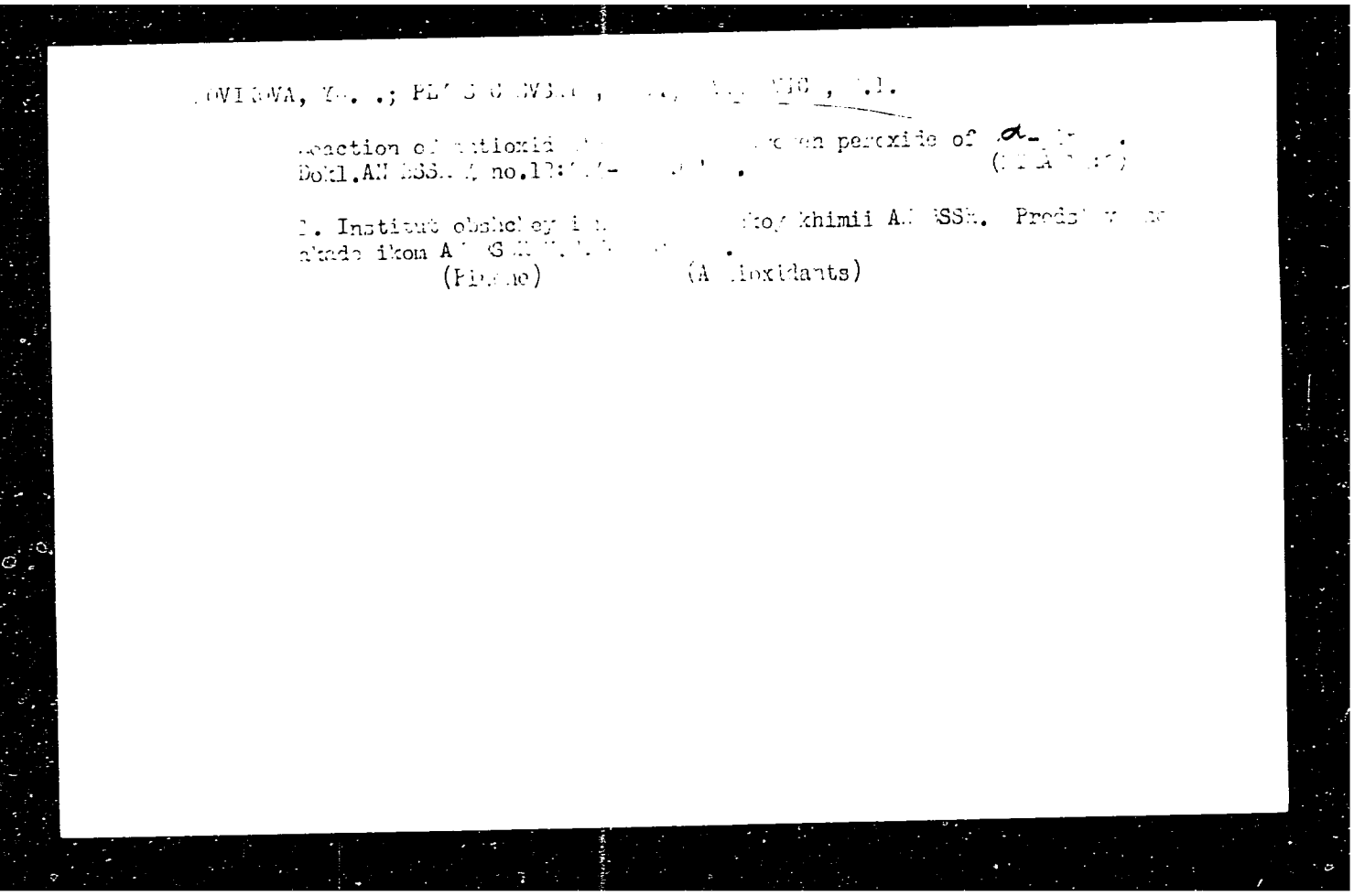

[illegible]VICHVA, Y[illegible]. .; PL[illegible] [illegible], [illegible]

[illegible]eaction of [illegible]tioxid[illegible] [illegible] [illegible]en peroxide of [illegible]-[illegible]. (Pl[illegible]A[illegible])
Dokl.AN SSSR, [illegible], no.1[illegible]-[illegible].

1. Institut obshchey i [illegible]fiz. khimii A[illegible] SSSR. Predst[illegible] [illegible]
akade[illegible]ikom A[illegible] S[illegible].
(Pi[illegible]ne) (A[illegible]ioxidants)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, N I

24(7),24(0) SOV/50-59-1-9/57
AUTHOR: Stepanov, B. I., Academician AS Belorusskaya SSR

TITLE: Investigations by Belorussian Scientists in the Field of Spectroscopy and Luminescence (Raboty belorusskikh uchenykh po spektroskopii i lyuminestsentsii)

PERIODICAL: Vestsi Akademii nauk SSSR, 1959, Nr 1, pp 68-76 (USSR)

ABSTRACT: These investigations are being carried out at the Institut fiziki i matematiki (Institute of Physics and Mathematics) and the fizicheskiy fakul'tet Belorusskogo universiteta (Physics Department of Belorussian University) under the direction of B. I. Stepanov, A. N. Sevchenko, M. A. Yel'yashevich, Academicians AS BSSR, and F. I. Fedorov, Corresponding Member, Academy of Sciences, BSSR. In the field of theoretical spectroscopy, the investigations by P. A. Apanasevich, B. I. Stepanov are mentioned. Further, the following investigations are indicated:

A. P. Prishivalko, B. I. Stepanov developed a theory of dispersion light filters.
M. I. Borisevich, Ya. S. Khrashchevskaya, I. F. Lapitskiy examined, by experiment, dispersion light filters for the infrared range.
A. P. Prishivalko analyzed the accuracy and the field of application of existing determination methods of optical constants of dispersed and not dispersed materials.
I. G. Rakhmanichik, A. A. Labuda, Yu. V. Martynov obtained important results concerning the kinetics of one single spark discharge (spectral intensity and discharge temperature).
A. A. Yachevskiy, I. S. Pinkov examined the mutual influences of elements in spectrum analysis, and explained the methods for their elimination.
G. V. Ovchinin suggested a series of methods to eliminate the influences of third elements.
G. V. Ovchinin, M. P. Krivoshеyev succeeded in working out a control method of benzyl penicillin in ordinary penicillin.

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M. A. Orlovich, M. F. Makarevich, A. I. Surgan examined the infrared spectra of various products.
F. A. Borisevich, V. I. Pesarevich, I. F. Gudzinskiy examined a series of structural peculiarities of alcohol oxides.
M. A. Borisevich worked out a luminescence method for the determination of the germinating power of the seed of some kinds of trees.
A. Ya. Prokopchuk obtained good results by the use of luminescence analysis in dermatology.
G. S. Zhavoronko examined the absorption spectra of the albuminous polysaccharide complexes.
D. A. Markov used spectral methods for analyzing albuminous fractions in the blood.
N. N. Pavlyuchenko, G. A. Lisenko carried out an ultraviolet spectrophotoelectrical examination of the formation of molecular and complex compounds in solutions.
N. A. Sevchenko spectroscopically examined the structure of various silicas.
B. I. Stepanov, A. N. Prir carried out theoretical investigations of the vibrational spectra of various silicate crystals

Card 6/6

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

7(3), 5(4), 24(7) SOV/48-23-10-18/39

AUTHORS: Borisevich, N. A., Makarevich, N. I., Prima, A. M., Bardyshev, I. I., Cherches, Ye. A.

TITLE: Identification of Resin Acids by Means of Their Infrared Spectra

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 10, pp 1219-1221 (USSR)

ABSTRACT: Coniferous resins, which essentially contain terpene hydrocarbons and resin acids, have many industrial uses. As the chemical analysis and the separation of the individual acids causes considerable difficulties in a mixture of pure resin acids, the infrared spectroscopic analysis of these substances is of particularly great importance. Hitherto, however, not many resin acids have been investigated in this way. In the present paper the authors give the results obtained by investigating four such resin acids, the structural formulas are mentioned: abietic acid (I), levopimaric acid (II), dextropimaric acid (III), and dehydroabietic acid (IV). Solutions of these acids in CCl_4 as well as pressed samples of acid + potassium bromide were investigated by means of a IKS-11-type

Card 1/2

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

Identification of Resin Acids by Means of Their Infrared Spectra

spectrometer. The spectra of the solution and the pressed sample show practically no difference whatever. The spectra obtained are shown by four diagrams. Their particular features are discussed. Within the range of the valence oscillations of the groups CH, CH_2, and CH_3 the spectra of I, II, and IV are very similar, and only III deviates, which is due to the existence of the group $-CH=CH_2$. The frequency of the bands corresponding to the groups C=O and COH (1685 and 1282 cm^{-1}) depends only to a small extent on the structure of the remaining acid molecule; the intensity of these bands, however, differs considerably according to the individual acids. Within the range of the double bond C=C a band was found at 1544 cm^{-1} in I, II, and IV, and one was found in III at 1631 cm^{-1} as well as one at 1409 cm^{-1}. In IV the band (1502 cm^{-1}), which is characteristic of the benzene ring, was found. A number of intense bands was also found in the range 800-1100 cm^{-1}: 893 (I), 1007 and 1024 (II), 821 (IV) and 905 cm^{-1}(III). There are 1 figure and 1 Soviet reference.

Card 2/2

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

PRIMA, A.M.; MAKAREVICH, N.I.; CHERCHES, Kh.A.; BARDYSHEV, I.I.

Study of the molecular association of resin acids by infared spectroscopy methods. Izv. AN BSSR.Ser.fiz. 26 no.10:1313-1316 O '62. (MIRA 15:10)

1. Institut fiziki AN BSSR i Institut fiziko-organicheskoy khimii AN BSSR.
(Resin acids—Spectra) (Molecular association)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, N.I.; BORISEVICH, N.A.

Method of pressing samples for obtaining infrared spectra. Zav.lab. 29 no.8:941-943 '63. (MIRA 16:9)

1. Institut fiziki AN BSSR.
(Spectrum, Infrared)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

PRIMA, A.M.; MAKAREVICH, N.I.; BARDYSHEV, I.I.; CHERCHES, Kh.A.

Infrared spectra of resin acids. Zhur. fiz. khim. 36 no.3:620-624 Mr '62. (MIRA 17:8)

1. Institut fiziki AN BSSR i Institut fiziko-organicheskoy khimii AN BSSR.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031420015-4

MAKAREVICH, N.I.

Crystalline forms of polyvinylidene [illegible] in the infrared spectrum. Zhur.prik. [illegible] 165.
(MIRA 18:9)

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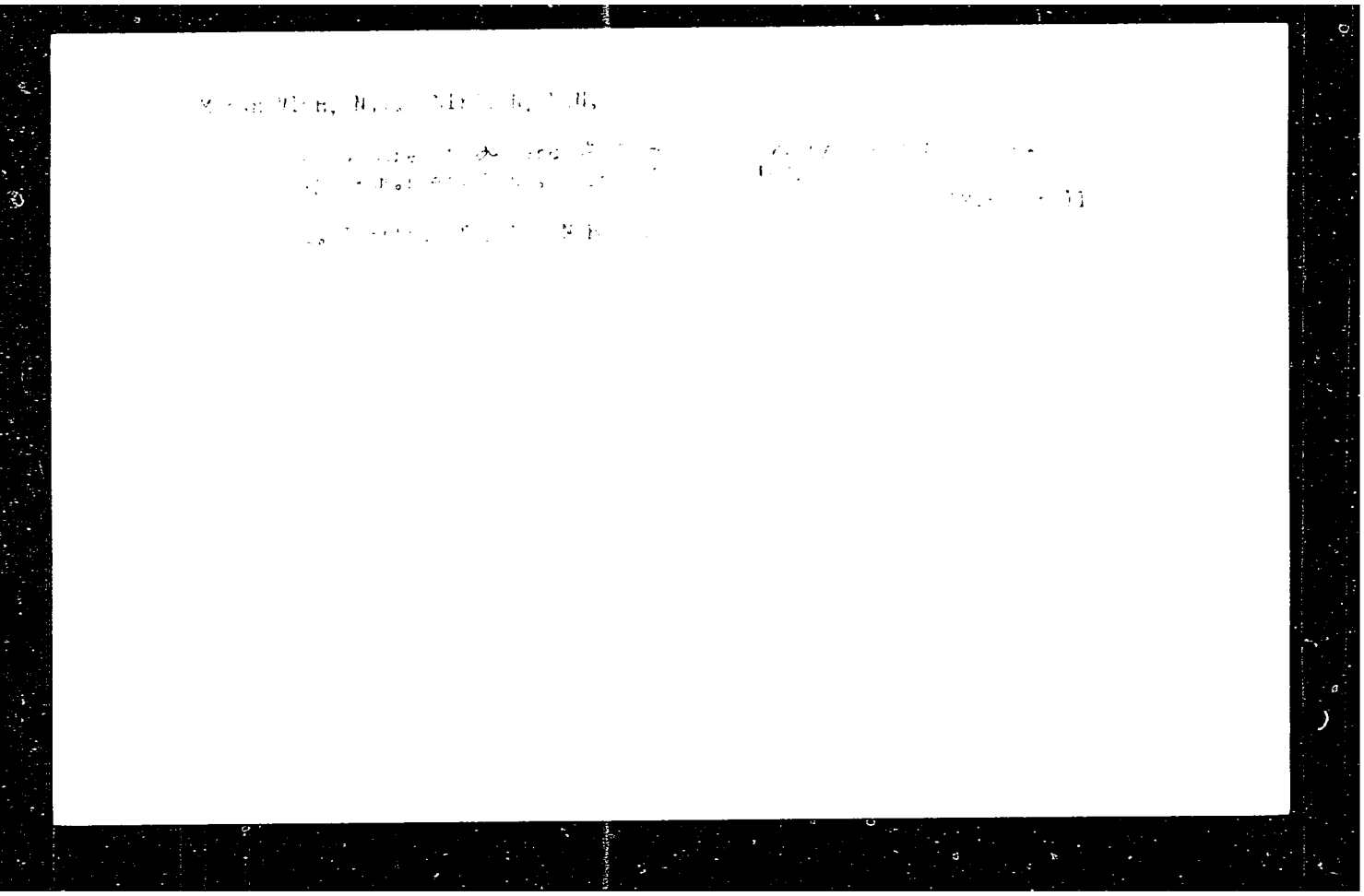

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L 34825-66 EWT(m)/EWP(j)/T RM
ACC NR: AP6017602 (A) SOURCE CODE: UR/0183/66/000/001/0026/0029

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TITLE: Using sulfur chloride solutions for cross-linking capron fibers

SOURCE: Khimicheskiye volokna, no. 1, 1966, 26-29

TOPIC TAGS: chloride, sulfur compound, polymer cross linking, synthetic fiber, ~~nylon~~, polyamide, IR spectrum

ABSTRACT: This article is the fourth in the series "Modification of Capron Fiber". The previous studies were devoted to the effect which dicarboxylic dichlorides, diisocyanates and cyanuric chloride have on the properties of polyamide fiber. In view of the cross linking which takes place with the formation of intermolecular chemical bonds when rubber, gutta-percha and polyvinyl alcohol are treated in sulfur chloride, experiments were conducted to study the use of this reagent for cross linking in capron fiber. No 34.5 polyamide was treated in an 8% solution of pyridine in xyloi. After the reaction, the modified fibers were extracted by carbon disulfide and acetone to a constant weight to eliminate the effect of sorbed sulfur on the properties of the

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